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ABSTRACT

This monograph, the second in a series intended as a resource for middle-level leaders, highlights three successful approaches that support student involvement in learning: problem-based learning, service learning, and student-led conferencing. Each approach is reported to have its roots in constructivism, which allows students to apply classroom content to real-world situations and then to reflect on what they have learned. The text defines problem-based learning, describes how it is applied in the classroom, and offers suggestions for designing a problem-based learning experience. It outlines the framework for problem-based learning, which includes meeting the problem, defining the problem, gathering the facts, hypothesizing, researching, rephrasing the problem, generating alternatives, advocating solutions, and assessing student performance. The volume also defines service learning and includes an overview of the benefits of service learning, namely, the promotion of academic learning, personal development, civic responsibility, and community benefits. It shows how to design a service-learning program, which includes selecting a project, aligning goals, and promoting student reflection. The final approach, student-led conferences, features an exposition of the benefits of student-led conferences, such as parent and teacher benefits. Ways in which student-led conferencing can function in practice are detailed. (Contains 33 references.) (RJM)

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National Alliance of Middle Level Schools
Turning Points: Recommendations Into Action

ED 434 414

# Promoting Student Involvement in the Learning Process:

## Three Successful Strategies

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NATIONAL ALLIANCE OF MIDDLE LEVEL SCHOOLS
TURNING POINTS: RECOMMENDATIONS INTO ACTION

# PROMOTING STUDENT INVOLVEMENT IN THE LEARNING PROCESS:

## THREE SUCCESSFUL STRATEGIES

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# About This Series

This publication is the second in a series of monographs developed by NASSP's National Alliance of Middle Level Schools as a resource for middle level leaders. The contents are recommended practical strategies, procedures, and ideas to enable school leaders to successfully plan and implement programs that will provide opportunities for students to be prepared for high school and beyond.

These monographs focus on implementing the recommendations put forth in *Turning Points: Preparing American Youth for the 21st Century*, published by the Carnegie Council on Adolescent Development. They offer clear and concise procedures for successful implementation in a variety of school communities.

Jerry W. Valentine is the editor for this monograph series. He is the director of the Middle Level Leadership Center and a professor in the Department of Educational Leadership and Policy Analysis at the University of Missouri, Columbia. The center works with NASSP and the Association's National Alliance of Middle Level Schools Advisory Council in identifying and developing topics for this monograph series.

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# Promoting Student Involvement in the Learning Process:
## Three Successful Strategies

*Turning Points* bemoaned the fact that "[a] volatile mismatch exists between the organization and curriculum of middle grade schools and the intellectual and emotional needs of young adolescents" (Carnegie Council on Adolescent Development, 1989, pp. 8–9). Nearly a decade later, many middle level educators still struggle with the challenge of designing engaging, activity-based experiences that are an appropriate match for the developmental needs of their students.

Although middle level teachers generally agree with the concept of students participating in their own learning, many still deliver content by the traditional, tried-and-true lecture method in highly structured classrooms. Lounsbury and Clark's (1990) shadow study of eighth grade students observed that most students "spent their day as passive learners—listening to teachers, copying from chalkboards, reading assignments, filling in worksheets, and taking tests" (p. 134).

Students must be actively engaged in the learning process if they are to successfully master course content (Lounsbury and Clark, 1990). Wood (1992) agrees, noting that "students learn best when they are engaged in real experiences yielding genuine products" (p. 59). Students should play a major role in making decisions concerning their learning experiences, and these experiences should relate to their daily life and locale (Wood, 1992).

Recognizing the need to involve students more effectively in learning processes, increasing numbers of middle school teachers are adopting a constructivist framework for teaching. In the constructivist classroom, "learners create their own knowledge structures rather than merely receive them from others. . . . Knowledge is not simply transmitted from teacher to student, but instead is constructed in the mind of the learner" (Sparks and Hirsh, 1997, p. 9).

Constructivism is based on the following principles:

- The learner is actively engaged in making meaning
- Learning is socially constructed, allowing learners to interact with one another
- Knowledge becomes generative as it is applied in context-based and meaningful problems
- The most effective learning results in conceptual change
- Optimal learning involves metacognition—reflecting on one's learning throughout the process (Glatthorn, 1995, p. 275).

These principles are compatible with *Turning Points* recommendation for developing middle school students' critical thinking skills:

> A primary goal in choosing curricula and teaching methods in the middle grades should be the disciplining of young adolescents' minds, that is, their capacity for active, engaged thinking. A student with a disciplined mind can assimilate knowledge, rather than merely recall information by rote or apply simple algorithms. The student can challenge the reliability of evidence; recognize the viewpoint or voice behind the words, pictures, or ideas presented; see relationships between ideas; and ask "what-if" and "suppose-that" questions. (p. 43)

Middle level teachers can readily achieve this goal by applying constructivist teaching principles. In a constructivist classroom, stu-

dents are immersed in complex, authentic learning activities. Working together in groups, they engage in critical thinking and creative problem-solving, pose questions, postulate, and test solutions.

This monograph highlights three successful approaches that support student involvement in learning: problem-based learning, service learning, and student-led conferencing. Each has its roots in constructivism, allowing students to apply classroom content to real-world situations and then to reflect on what they have learned.

## Problem-Based Learning

A significant concern expressed in *Turning Points* was that the middle level curriculum frequently lacks sufficient depth of content. The Carnegie task force recommended that curriculum and instruction could be greatly improved by teaching young adolescents to think critically, integrating subject matter across disciplines, and teaching students to learn as well as to test successfully. Problem-based learning, a relatively new curriculum model for K–12 educators, demonstrates the ability to effectively address each of these recommendations.

The problem-based learning model emerged in the 1960s and 1970s as a solution to medical school educators' concerns that aspiring doctors remembered very little of the content they had been taught (Barrows, 1985). Rather than continuing to rely on a one-way delivery of information from the teacher via lecture, medical school faculties began restructuring their instructional approach "to provide learners a more active role in the educational process" (Aspy, Aspy, and Quinby, 1993, p. 22). Supported by evaluations demonstrating that students master content equally as well as those taught by traditional methods, numerous medical schools are now using a problem-based approach (Aspy et al., 1993). This model has now been successfully adapted for use with elementary, middle, and high school students (Stepien, Gallagher, and Workman, 1993).

### Problem-Based Learning Defined

Problem-based learning (PBL) has been defined as "the learning that results from the process of working toward the understanding or resolution of a problem" (Barrows and Tamblyn, 1980, p. 18). The PBL approach is structured around "real-life problems that are ill-structured, open-ended, or ambiguous. An ill-structured problem is fuzzy, unclear, or not yet identified" (Fogarty, 1997, p. 1). Students are confronted with complex issues that have many potential solutions and are charged with identifying their unique solution, based on their analysis of the information they access. There is no single "right" answer and no fixed procedure for solving the problem (Barrows, 1985). Problem-based learning is closely aligned with the five principles of constructivism.

Before receiving any formal instruction on the concepts they are expected to learn, students are presented with problems, wrestle with the complex issues presented, and use knowledge they have gained to develop workable solutions. Through the problem-solving process, students engage in research, discover, and learn the curriculum content. Stepien and Gallagher (1993) note:

> As with real problems, students encountering ill-structured problems will not have most of the relevant information needed to solve the problem at the outset. Nor will they know exactly what actions are required for resolution. After they tackle the problem, the definition of the problem may change. And even after they propose a solution, the students will never be sure they made the right decision. They will have had

> the experience of having to make the best possible decision based on the information at hand. (p. 26)

PBL is a real-life problem solving apprenticeship (Stepien and Gallagher, 1993). Instead of merely learning about the process of solving problems, students actually find themselves knee-deep in the messy experience of fashioning solutions to the world's big problems.

## The PBL Classroom

*Turning Points* calls upon teachers to "promote a spirit of inquiry" in the classroom and to utilize "learning techniques that allow students to participate actively in discovering and creating new solutions to problems" (p. 43). In addition, the Coalition of Essential Schools (Sizer, 1986) and the National Association of Secondary School Principals (1986) encourage teachers to assume a coaching role, permitting students to be actively involved in the learning process. Problem-based learning mandates that teachers move away from center stage and become "resources for processes rather than sources of answers to be memorized in order to pass tests" (Aspy et al., 1993, p. 22). Stepien and Gallagher (1993) describe the restructured PBL classroom as follows:

> Through problem-based learning, students learn how to use an iterative process of assessing what they know, identifying what they need to know, gathering information, and collaborating on the evaluation of hypotheses in light of the data they have collected. Their teachers act as coaches and tutors: probing findings, hypotheses, and conclusions; sharing their thinking when students need a model; and attending to metacognitive growth by way of "time out" discussions on how thinking is progressing. (pp. 25-26)

Problem-based learning readily aligns with the middle school concept, including as integral components the use of cooperative learning and interdisciplinary instruction. The primary learning mode is small-group discussion since students, by design, address their problems in small work groups. As they engage in fact-finding and problem solving, students access information in context from a variety of subjects (Stepien and Gallagher, 1993). Delisle (1997) asserts that PBL is also in alignment with the movement for higher standards and increased achievement, because students are expected to demonstrate an understanding of the content as they build their analytical reasoning skills. In addition, PBL is the epitome of authentic instruction (Stepien and Gallagher, 1993).

## Designing a PBL Experience

Problem-based learning can take one of two forms: either as the entire curricular focus or as a short problem within a unit, known as a "post-hole" (Stepien and Gallagher, 1993). When curriculum units are completely designed around PBL experiences, teachers must carefully develop complex problems to ensure that they will embrace all required curriculum content in each of the disciplines involved. In contrast, post-holes are inserted for a few days within a unit and are designed to deepen and enrich students' understanding of concepts, as opposed to simply cover content (Stepien et al., 1993).

Savoie and Hughes (1994) suggest that teachers consider the following dimensions when developing a PBL experience:

- Begin with a problem
- Ensure the problem connects with the students' world
- Organize the subject matter around the problem, not around the disciplines
- Give students the major responsibility for shaping and directing their own learning

- Use small teams as the context for most learning
- Require students to demonstrate what they have learned through a product or performance (p. 54).

Delisle (1997) adds that the problem should also be developmentally appropriate and provide for a variety of teaching and learning strategies and styles. Students of varying ability levels should be able to contribute to the solution.

## A Problem-Based Learning Framework

Fogarty (1997) notes eight elements to consider when students are immersed in problem-based learning: meeting the problem, defining the problem, gathering the facts, hypothesizing, researching, rephrasing the problem, generating alternatives, and advocating solutions.

### *Meeting the Problem*

Savery and Duffy note two vital components of problems: they must be relevant to the content domain and they must be "real." Teachers should consult their district curriculum guides to ensure problems address the learning objectives for their content areas and grade level, since "all of the learning arises out of consideration of the problem" (Savery and Duffy, 1995, p. 37). Problems must address real issues because students are more likely to become interested, motivated to learn, and "hooked" on finding solutions to a real problem.

In addition, since students are free to access all types of information related to the problem, including classroom materials, library resources, and the Internet, it would be extremely difficult for a teacher or teaching team to generate a complete set of informational materials for a contrived problem. Finally, since students are likely to become personally and emotionally invested in the problem, they will want to know what adults in the "real world" are doing to reach a solution (Savery and Duffy, 1995).

PBL problems are distinguished from other curriculum models because they are purposely open-ended and presented through a real-life scenario that calls for a decision to be made (Fogarty, 1997). Students are assigned roles so they may view the problem from a perspective that is free from their own personal views and biases. The teacher may choose a different role for each member of the group or assign the same role for all students. For example, students may be given the following scenario:

You are research scientists at the Centers for Disease Control in Atlanta. The governor of Mississippi has just informed you that an unknown virus has attacked 125 of 1,400 inhabitants of a small town in her state, causing 15 deaths within the past three days. At present, no vaccine for the virus exists. As CDC scientists, what will you do to address this urgent problem?

### *Defining the Problem*

The students now craft a more precise definition of the problem based up the limited knowledge they have. This activity allows students to identify the gaps in their knowledge and shows them the direction their investigation must head (Fogarty, 1997).

### *Gathering the Facts*

At this point, students determine what they already know about the problem, identify areas where additional information is needed, and determine their next steps to finding a solution. Stepien et al. (1993) encourage the use of a KND chart (see Figure 1) where students list

**Figure 1: KND Chart**

| What do we know? | What do we need to know? | What should we do? |
|---|---|---|
| | | |

what they "Know," what they "Need to Know," and what they should "Do." In the above scenario, students may need to know more about the work of the Centers for Disease Control and may need greater understanding of viruses and vaccines before they can determine a solution to this problem.

### *Hypothesizing*

This stage of the PBL process allows students to express their hunches and verbalize what they believe their next steps should be. Delisle (1997) suggests that students may want to develop an "Ideas" column to generate possible solutions or methods of solving the problem. This column could readily be added to the KND chart students have already developed. The "Ideas" helps direct students to the research they need to complete to determine the best solution. Some ideas students may suggest in the virus scenario may be to quarantine the town and simply allow the stricken residents to die without treatment, or to attempt to vaccinate the residents with existing antibodies that may or may not provide a cure.

### *Researching*

Students now embark on extensive fact-finding missions—either as individuals or as subgroups—and utilize a variety of resources while retaining their assigned roles. Students may consult their textbooks, access resources in the school library, interview students and adults, do research on the Internet, visit off-school sites, and ask their teachers to perform demonstrations.

This stage of the PBL process provides the greatest opportunity for learning across the disciplines. For example, in the virus scenario, students may read newspaper and magazine articles on outbreaks of diseases, ask the teacher to invite a local doctor to be interviewed by the class, or engage in mathematical calculations to project how long it make take for all the town's residents to become stricken with the illness.

### *Rephrasing the Problem*

Students continually revisit and revise the problem statement as additional facts are discovered and discussed. As their collective knowledge expands, they may choose to revise the

direction of their initial research focus. The teacher may ask probing questions or skillfully guide students into research areas vital to their understanding of the problem as well as their understanding of the subject content.

### Generating Alternatives

As students consider potential solutions, they are confronted with legal, moral, ethical, and economic considerations and are forced to examine their personal values and beliefs regarding the issue (Fogarty, 1997; Stepien et al., 1993). They learn that many of life's dilemmas are not readily defined in black-and-white terms, but in varying shades of gray. Students develop skills of persuasion, since they must justify their suggested solutions, and also learn the art of listening skillfully and critically to others' arguments.

"Real" problems are usually bounded by time constraints, and PBL experiences must also remain true to originally established timelines. This boundary is necessary because teachers must teach subject matter content beyond the current PBL activity, and students must also see that, as in real life, sometimes they will be forced to make the best possible decision based on the information available to them at that particular time. Fogarty (1997) suggests that students place alternatives into three categories: probable solutions, possible solutions, and preferable solutions. Students may then carefully examine ideas for their inherent worth, while preventing impulsive decisions.

### Advocating Solutions

Consistent with the tenets of authentic assessment, each student group should be empowered to present its agreed-upon solution in its chosen format, which may range from oral presentations to written reports to letters to public officials urging them to take action on the problem.

### Assessing Student Performance

Evaluation of student performance is constant throughout the PBL activity, beginning when the problem is introduced and continuing until the final product is presented (Delisle, 1997). The medical school model included peer and self-evaluations and suggestions for improvement in the areas of self-directed learning, problem solving, and group membership skills (Savery and Duffy, 1995). Middle level teachers will certainly wish to include these components in their assessments.

Stepien and Gallagher (1993) also recommend that students compile a problem log and engage in periodic exercises throughout the unit. The purpose of these exercises is "to sample student thinking at different stages and to check on skill development related to information gathering, analysis, and evaluation" (p. 28).

Since PBL is an authentic activity, using a traditional pencil-and-paper test as a means for students to demonstrate they have mastered the content may seem inappropriate. However, a performance demonstration should be required, in a format mutually acceptable to teachers and students. In the case of a formal presentation, the teacher may decide to call upon community members, parents, or other teachers to play certain roles for the presenters (such as the role of governor of Mississippi in the virus scenario) or may have the class assume these roles. Team members will be expected to justify their decisions; those who disagree will be required to present arguments in support of their alternative solutions.

### Problem-Based Learning in Practice

Burr Ridge Middle School (BRMS) in Burr Ridge, Ill., approximately 20 miles from downtown Chicago, has an ethnically diverse enrollment of 325 students in grades five through eight. Approximately 35 percent are minority, primarily African-American. Principal Roger Sanders notes

that the school embraces the middle school philosophy and has implemented problem-based learning activities for several years.

Lisa Nicholson has taught grades six through eight at BRMS and coordinates the school's PBL program. Lisa and teacher Jim Fischer have developed an interdisciplinary problem entitled "AIDS in the Middle School." This three-week unit integrates content from science and mathematics and can be easily expanded to include language arts and social science. Content and skills to be addressed during the unit include: AIDS symptoms, causes of AIDS, types of tests for the virus, state and national laws concerning health safety issues within the school and the rights of the individual, emotional issues, math graphing skills, problem solving skills, writing skills, and communication skills. The suggested structure of this unit is described in Figure 2.

On the first day, students receive a sheet containing the following information:

You are a sixth-grade student. You have just received this letter from your best friend with whom you have gone to school since kindergarten. Your families are close friends.

*Dear _____,*

*What's up? Can you believe the test Mrs. Panatera gave us in Social Studies? Man, was that hard! The real reason I'm writing you is that I'm really scared. My parents told me I have to go to the health department to get some kind of test. The reason I'm going is that I've been feeling really sick. I've had bad diarrhea, night sweats, and my whole body just aches. They think I might have AIDS. Please, please, don't tell ANYONE what's going on. I can't believe this is happening to me. Please still be my friend. I'll let you know how it goes at the health department.*

Students begin the activity by completing their KND charts and receiving research assignments within their groups. To guide them and ensure they are learning the essential content, groups are provided with a series of questions to answer on selected days.

## Figure 2

### "AIDS in the Middle School" PBL Activity

Suggested Unit Timeline

| | |
|---|---|
| Day 1 | Receive first document-Letter #1 Complete KND chart |
| Day 2 | Research KND items and answer Day 2 questions |
| Day 3 | Research; share newly learned information |
| Day 4 | Receive second document-Letter #2 KND chart Answer Day 4 questions |
| Day 5 | Research KND items |
| Day 6 | Research; share newly learned information |
| Day 7 | Ten-Minute Enrichment Lab: Tracing the Path of a Communicable Disease |
| Day 8 | Lab: How Can AIDS Be Spread? |
| Day 9 | Receive third document-Letter #3 KND chart |
| Day 10 | Research KND items |
| Day 11 | Research; share newly learned information |
| Days 12-13 | Prepare for final presentation |
| Days 14-15 | Presentations |

Students are presented with a set of questions on Day 4 to help them with their research, as well as a second letter:

*Dear _____,*

*I can't believe what the health department doctor told me yesterday in his office. I'm so scared. She told me I tested positive on some test called the Western Bloy Assay. Then he told me I've got AIDS—no I mean I'm HIV positive. I don't know why this is happening to me. All K.C. and I did was "make out." Do you think I got it kissing? How else could I have gotten it? I'm so mad I could scream. I didn't do anything wrong to deserve this.*

Students complete two laboratory activities during this unit. In the first lab, students trace the path of a communicable disease. In the second lab activity, students identify ways AIDS can and cannot be spread. On Day 9, students receive a third and final letter, explaining that the friend has informed the principal and he has asked who within the school should be notified of the illness. The friend asks for advice.

For their final assessment, students have a choice of either writing a letter back to their HIV-positive friend or giving a speech, which must include the following information:

- Detailed solution to the friend's situation
- Facts/opinions supporting this solution
- Who should know and why
- How laws on HIV/AIDS affect this decision
- How others might react to this news if they were selected to be informed
- Information on the transmission of the HIV virus affecting this solution.

In addition to this final presentation, student performance is assessed throughout the unit, including the skill in finding satisfactory answers to questions, completing the lab experiments and post-experiment questions, preparing an "AIDS Statistics" graph, and a paper reflecting on a presentation by a guest speaker (who may be a person infected with AIDS or a health worker).

Lisa and Jim observe that this activity provides an opportunity for students to learn about AIDS from a personal, involved perspective, instead of merely being presented with clinical information and statistics on AIDS and HIV. Consequently, they are more likely to realize the effects of risky behavior and to display the ability to emphasize with individuals who may have the disease.

## Service Learning

Service learning provides an opportunity to actively involve middle level students in the educational process outside the boundaries of the classroom walls. Service learning is presently used at all academic levels—from primary grades through college—with positive learning outcomes for students at each level. In 1989, *Turning Points* recommended that "Every middle grade school should include youth service—supervised activity helping others in the community or in school—in its core instructional program" (p. 45). The National Association of Secondary School Principals also recently endorsed this concept for secondary students, recommending that each high school "will require each student to participate in a service program in the community or in the school itself that has educational value" (NASSP, 1996, p. 94). Both groups emphasize that these service activities be linked to the instructional program.

### Service Learning Defined

Service learning can be defined as "an experiential approach to education that involves students in a wide range of activities that are of benefit to others, and uses the experiences generated to advance the curricula goals" (Waterman, 1997b, p. xi). Witmer and Anderson (1994) extend this definition to include "a process of learning through the experience of rendering service in the school or community and actively reflecting upon the experience" (p. 3).

Students learn by doing, which is consistent with the constructivist theory. An effective program allows students to apply their academic learning to real life situations, reflect on their experiences, and become more thoughtful, caring members of our society through this process. Therefore, "learning takes place in two ways—as students take part in the experience and as they reflect upon what happened during the experience and as a result of it" (Witmer and Anderson, 1994, p. 5).

Although the terms "community service" and "volunteerism" are sometimes used synonymously to denote the idea of service learning, they are not interchangeable concepts (Fertman, 1994; Witmer and Anderson, 1994). Community service and volunteerism are not necessarily tied to the middle level curriculum and they typically do not include a reflective component in which students are encouraged to review how their participation made a difference. One-shot community service and volunteer activities such as disaster relief efforts, toy drives, and fundraisers, while worthwhile endeavors, may simply promote and inflate students' good feelings about these limited philanthropic efforts while failing to integrate their experiences with the learning process. In addition, the term "community service" may also have negative connotations for students relative to punitive consequences for breaking civil laws.

## Benefits of Service Learning

Proponents of service learning point to numerous benefits of these programs. Waterman (1997a) has grouped these benefits into the following four categories, which will be explained in greater detail below:

- Enhancing the learning of material that is part of the traditional in-school curriculum
- Promoting personal development
- Fostering the development of civic responsibility and other values of citizenship
- Accruing benefits for the community (p. 3).

### *Promoting Academic Learning*

Perhaps the most appealing feature of service learning programs is the ability to make the middle level curriculum relevant to those issues that confront young adolescents in today's society. It provides that elusive link between academic content and the real world (Clark and Clark, 1994; Witmer and Anderson, 1994).

An examination of reflective journal entries of approximately 4,000 students who participated in service activities revealed that 95 percent believed they learned as much or more from these experiences than they did from their regular classroom activities. However, instead of an enriched academic knowledge, their newfound understandings were of a more personal nature—"the basic issues of adolescence and beyond: relationships, significance, connection, suffering, meaning, hope, love, and attachment" (Conrad and Hedin, 1991, p. 749).

This finding does not mean that academic content cannot be learned in context with service activities, but it does indicate that educators should carefully construct appropriate learning activities. For example, improved student learning of academic content is most likely to occur when service takes the form of either teaching younger students or peer tutoring (Conrad and Hedin, 1991). Student mastery of content is more likely to increase when students' field experiences are specifically tailored to include academic content.

### *Promoting Personal Development*

Carefully designed programs can influence students' social and psychological development. In addition, "becoming an asset to one's community and feeling needed by someone else are strong contributors to positive self-concept" (Clark and Clark, 1994, p. 168). Waterman (1997a) notes that youth service activities have the added feature of providing a mechanism for students to explore various careers.

In a review of quantitative studies of service learning, Conrad and Hedin (1991) found that effective programs produced the following positive student outcomes:

- More favorable attitudes toward adults and toward the types of organizations and people with whom they were involved
- Gains in personal and social responsibility
- More positive attitudes toward others, a greater sense of efficacy, and higher self-esteem
- Decreased levels of alienation/isolation and few disciplinary problems for students with behavioral difficulties
- Gains in social competence in such areas as communicating effectively in groups, initiating conversations with strangers, and persuading adults to seriously consider their views
- Gains in moral and ego development
- More complex patterns of thought.

Changes in students' attitudes and values tend to be specific to the nature of the activity itself. Therefore, middle level teachers wishing to promote student development should design service activities directly related to the targeted areas. Of course, the aim should be to facilitate "a reflective development of attitudes and values, not the forming of particular attitude or value contents" (Waterman, 1997a, p. 4).

*Turning Points* notes that youth service can also teach students such skills as "collaboration, problem-solving, conflict resolution, and seeing projects in their entirety rather than in pieces" (p. 45). These are essential workplace readiness skills.

### *Promoting Civic Responsibility*

Service learning can help students increase their understanding of their civic responsibility since it "offers young people the opportunity to be responsible, caring participating members of society" (Witmer and Anderson, 1994, p. 5). *Turning Points* states that the middle level years present "a superb opportunity to learn values, skills, and a sense of social responsibility important for citizenship in the United States" (p. 45). These values include "compassion, regard for human worth and dignity, respect for others' rights, tolerance and appreciation of human diversity, willingness to cooperate, and a desire for social justice" (p. 45).

Kahne and Westheimer (1996) observe that the most highly supported service learning goal is to promote an understanding of the importance of charity, and they argue that this goal is not sufficient in and of itself. Since citizenship requires substantially more than merely kindness and decency, they believe students should be encouraged to engage in a more aggressive social reconstruction agenda. Admittedly, many middle level teachers and administrators may wish to stop short of a publicly defined political agenda for their service learning activity; however, as a result of their involvement in service activities, students may begin to actively question the policies and programs of social institutions and may choose to explore solutions to some of their community problems.

### *Promoting Community Benefits*

Service learning permits students to address community needs (Witmer and Anderson, 1994). By participating in these programs, students learn to become active participants instead of passive observers, and their community benefits as a result.

Community residents sometimes have negative impressions of young adolescents and teenagers; conversely, young adolescents do not always have positive views of older adults and those in perceived positions of authority. Activities such as reading to nursing home residents, working in a homeless shelter, or participating in a local Habitat for Humanity project can greatly reduce antagonism between adolescents and adults (Holland, 1995).

Clark and Clark (1994) note:

> When the community is served well by young adolescents, it begins to view students as contributors, thus opening up new opportunities for service and new sources of support. Youth service programs provide an opportunity for the school and community to join together in enhancing the educational and developmental opportunities of American youth. (p. 168)

Relationships forged between community agencies and the schools will most likely continue beyond the timeframe of any service activity. Educators may find that these improved communication channels will yield dividends to the school in ways that reach far beyond the initial project.

## Designing a Service Learning Program

A service learning program can be delivered in several formats, including: a club activity, an interdisciplinary unit involving only one class or the entire interdisciplinary team, a separate service class (required or elective), or a schoolwide project (Clark and Welmers, 1994). Whatever the approach, the program should involve students in the following: "(1) intentional and thought-provoking application of their classroom learning to meaningful work and service in their schools and community, (2) active and engaging work that somehow connects their school and community, and (3) structured reflection" (Totten and Pedersen, 1997, p. 3). Stated in its simplest terms, the process is as follows:

LEARN ⟶ SERVE ⟶ REFLECT

### *Selecting a Project*

The service learning program should be tied to the vision and mission of the school and should have a definite purpose (Clark and Welmers, 1994). The initial steps in developing the project include identifying needs within the community or school and offering students' services to assist with these needs (Fogarty, 1997). Teachers should ensure that students are involved in all phases of this educational experience, even at the initial stage of locating potential projects. Students can contact community agencies, read newspaper articles, consult with school officials concerning school or community needs, listen to news reports, and interview community leaders.

Fogarty (1997) suggests five criteria to help students and teachers select projects: interest, need, access, appropriateness, and time frame. The service activity should be of sufficient interest to motivate students to participate, there should be a great need for the service to be performed, and the site should be accessible to students and staff. Many potential projects, while deserving of support, may be inappropriate for middle level students, or the time frame may be too lengthy (or must be scheduled at inappropriate hours) to be incorporated into the school curriculum.

### *Aligning Goals*

Many middle level schools fail to tie service projects to the school curriculum (Totten, as cited in Holland, 1995). To ensure students gain the most from these experiences, service learning should be aligned with the mission and goals of the school. Teachers should clearly identify the expected outcomes of the service activity, including both service and academic goals, and target the academic learning and transfer that should occur as a result (Fogarty, 1997). Clark and Welmers (1994) suggest that teachers engage in curriculum mapping to help identify common concepts that can be addressed as thematic units with a service learning component.

Schools frequently progress through stages as they develop their service learning projects, starting with one-shot projects and evolving into longer-term programs that benefit students and the community (Holland, 1995). Teachers should keep the phrase "less is more" foremost in their planning. Rather than scheduling numerous short-term projects that stretch the limits of students and school resources, teachers should carefully select only a few projects that permit in-depth student engagement and reflection while meeting the needs of the school or community. Fewer sites also permit faculty to closely monitor the activities and quickly address any problems that may arise for either students or the site.

The role of site sponsors in ensuring that students achieve their learning goals cannot be overstated. Successful programs are grounded in continual and open communication between community personnel and the faculty. "Such communication ensures more attention to the learning taking place and encourages site sponsors to become more engaged in the process of connecting communities to classrooms" (Shumer, 1997, p. 36).

### *Promoting Student Reflection*

A distinguishing feature of service learning is the opportunity for students to reflect on their experiences and engage in critical analysis of their understandings. A primary goal of reflection should be for students to critically question their previously held beliefs and stereotypes. Kahne and Westheimer (1996) assert that engaging in critical self-reflection is necessary because "students must be able to consider arguments that justify conclusions that conflict with their own predispositions and self-interest" (p. 598). Without this component of critical self-reflection, students' previous misperceptions may simply be reinforced.

The reflective component can be designed as either an individual or a group activity. Witmer and Anderson (1994) recommend that both written and oral follow-through be included, since "reflection helps students identify their own values, assess personal skills, develop empathy for others, and compare their assumptions to real-world experiences" (p. 47). Individual reflection can be facilitated by requiring students to maintain a daily journal; compile a portfolio or scrapbook documenting those experiences that had personal meaning; or discuss the activity with their teacher, adviser, or site supervisor. Group reflection can take the form of oral presentations to the class or group discussions in which students share their experiences, the effectiveness of their service, and root causes and interrelatedness of social problems (Witmer and Anderson, 1994).

## Service Learning in Practice

The following illustration demonstrates how service learning can be included as a required service course within the middle level exploratory curriculum. Parkview Middle School (PMS) is located in Ankeny, Iowa, a rapidly growing suburban community of approximately 25,000 just north of Des Moines, Iowa's largest city. Parkview houses approximately 850 students in grades six and seven, and has fully implemented the middle school concept, including the use of interdisciplinary teaming, a homeroom advisory program, and exploratory courses. Three interdisciplinary teams are operating at each of the school's two grade levels.

Prior to the 1997–1998 school year, the seventh-grade exploratory rotation included the following six areas: computer skills, family and consumer sciences, general music, art, industrial technology, and Drug Abuse Resistance Education (DARE). At the beginning of the

1997–1998 year, Principal Danielle Chappell agreed to include a service learning requirement in the exploratory wheel. The purpose of the service learning program would be to help students connect the curriculum to the real world through community-based service.

To permit sufficient time for service activities, the three interdisciplinary seventh grade teams and the exploratory team agreed to restructure their schedules for the final five-weeks of the school year so the seventh graders could work as a group. In place of one daily exploratory period on each team, the three teams rotate on a three-day cycle, permitting each team of students to participate in the service learning program for an entire afternoon on their scheduled day.

The PMS teachers identified the following outcomes for this activity:

- Students develop a capacity for action: making a difference and meeting real needs
- Students develop a sense of self-worth: developing moral and human values
- Students develop citizenship skills: developing a connection to, and responsibility for leadership in school and community
- Students develop improved academic skills: they think critically and gain and apply academic skills and knowledge through study of community problems.

The PMS service learning curriculum includes a leadership component, and a group of student leaders are selected to coordinate each project. The curriculum content also includes training in a six-step problem solving process, which is intended to help students develop their service learning plan: Define the situation, state the goals, identify the solution, prepare a plan, take action, and evaluate.

To ensure students participated in meaningful, community-based experiences, the PMS faculty contacted local business and community leaders in and around Ankeny and solicited their suggestions for service projects. The Ankeny community has a long-standing tradition of support for the local schools, and the business people were quick to respond with a multitude of suggested projects. Chappell laughingly observed, "There was no shortage of suggestions. We had enough activities to last us the next 20 years!"

Since the service learning unit encompassed only five weeks, projects that could be completed in this timeframe were selected. Enough activities were selected to create an average group size of approximately 24 students per project. As illustrated in Figure 3, a wide array of activities were represented, ranging from activities for schools within the Ankeny Community School District, to fund-raising events, clean-up projects, and service activities at local senior citizen centers both in Ankeny and neighboring communities. Several activities permitted students to apply skills they had learned in their family and consumer sciences, industrial technology, and computer exploratory classes.

The PMS teachers found that providing services to their school and community can sometimes result in unanticipated costs for materials and supplies. This year's costs totaled $2,500, which can be prohibitive for school budgets that are already strained. Students' solutions to this problem were to participate in two projects to raise the needed funds for their service activities; the school also was awarded a small grant to assist with project expenses. The teachers have scheduled a picnic as a culminating event to celebrate the successful completion of the service learning unit.

As the Parkview Middle School faculty continues to experiment with the service learning concept, it is likely that the list of projects directly related to their course content will continue to grow. They no doubt agree with Shumer's (1997) observation:

## Figure 3

### Parkview Middle School

Service Learning Program

- Serve breakfast at senior citizen center
- Clean up restaurant parking lot
- Fund-raising projects: car wash and paint/sell flower pots
- Plant flowers around high school state champion sign
- Ice cream social for senior citizen apartments
- Birthday party at retirement community center
- Clean up grounds around Ankeny City Hall
- Design and paint mural at area independent living facility
- Do lawn work for senior citizens
- Paint garage and deck for a local senior citizen
- Visit area nursing homes and socialize with residents
- Design and build benches for Ankeny city parks
- Assist with fourth grade field day
- Barbecue at local nursing home
- Design and sew wheelchair pouches for nursing home and area hospice
- Make personal care bags for Des Moines nursing home
- Clothing drive for program for the needy
- Food drive for area food pantries
- Computer classes for elementary students and senior citizens
- Build flats for Parkview Middle School drama department
- Build display and comment box for Parkview Middle School library
- Purchase and install blinds for Community Resource Center
- Clean up grounds around Community Resource Center
- Design and build bookshelves for PMS classrooms

Service learning is fun. Participants routinely report what they did in the service project not only helped them to learn, but had a positive effect on their attitude toward learning and group behavior. Students at all levels reported service-learning to be an enjoyable experience. . .They also claimed the experience helped eliminate the monotony of school by providing breaks in time and by providing learning opportunities away from campus. (p. 36)

## Student-Led Conferences

Early adolescence is a difficult and pivotal stage of development for many middle level students. The typical emerging adolescent, who is no longer a child but is still several years removed from adulthood, struggles with low self-esteem and concerns over peer acceptance (George and Alexander, 1993). Conflicts between adolescents and adults may occur, and lines of communication between parent and child may become increasingly strained as the student aggressively seeks greater levels of independence, freedom, and responsibility.

In recognition of this developmental stage, middle level faculties should provide opportunities for students to assume greater personal control over their learning. In many junior high schools, it is lamentable that "students appear to have fewer opportunities for making decisions than in elementary schools" (Carnegie Council on Adolescent Development, 1989, p. 54). The concept of active involvement of students must reach beyond the boundaries of the instructional day into all facets of the educational process.

In schools viewed as effective learning organizations, educators continuously analyze their school programs in an effort to unearth opportunities to more actively engage their students. One school practice receiving serious examina-

tion is the traditional method of communicating with parents regarding student performance.

In the traditional conference format, parent and teacher discuss the student's educational progress without benefit of the student being present at the meeting. Left at home and forced to anxiously await the results of these adult conversations, many young adolescents view these traditional conferences with a great deal of suspicion and even a certain amount of hostility toward the adults.

Traditional parent-teacher conferences may indeed be beneficial at the elementary level or for a self-contained classroom setting, but this format is not necessarily the most effective at the middle level. Frequently the child's adviser meets with the parents, serving as a representative of all the student's teachers. Unfortunately, this teacher is called upon to explain academic grades and performance levels in classes for which he/she does not have full information (Countryman and Schroeder, 1996). Faced with incomplete information, parents must then consult their student or the appropriate teacher for a more detailed explanation, which is frustrating for both student and parent. What should be a positive communication vehicle can quickly turn into a logistical nightmare.

The traditional format does little to foster improved communication between parent and child or to keep parents engaged in their children's education. Recognizing this limitation, many middle level faculties are restructuring their time-honored methods of reporting student progress to parents by replacing the traditional parent-teacher conference with student-led conferences.

## Student-Led Conferencing Defined

In the student-led conferencing model, the student assumes responsibility for directing the academic conference with his or her parent(s). The teacher's role is redefined as a facilitator: monitoring the student's performance, providing evaluative feedback to the student, and intervening in a supportive way if parents have questions or concerns the student may not be able to answer adequately (Hackmann, 1996). This conferencing model addresses one or more of the following goals:

- To empower students to take personal responsibility for learning and reporting their academic progress to their parents
- To teach students the process of reflection and self-evaluation
- To motivate students to do their best work
- To continue to develop students' organizational and communication skills
- To facilitate open, honest dialogue among student, parent, and teacher (Countryman and Schroeder, 1996; Guyton and Fielstein, 1989; Hackmann, 1996; Hackmann, Kenworthy, and Nibbelink, 1995; Little and Allan, 1989).

## Benefits of Student-Led Conferences

The student-led conferencing model is beneficial for student, parent, and teacher.

### *Student Benefits*

The student moves from passive recipient of information to active participant in the process. Instead of sitting quietly during a teacher-parent discussion, the student is empowered as an equal partner. Of course, with greater involvement also comes increased accountability and responsibility. The student must organize the conference content, practice his or her communication skills, and be prepared to explain factors that influenced his or her grades, such as incomplete homework assignments or unsatisfactory scores on examinations.

The conference also provides an opportunity for students to share the contents of their portfolios. In preparation for the conference the student can review the portfolio materials, selecting only those items that have personal meaning. A portion of the conference can be devoted to discussing the portfolio, as the student explains to his or her parents why items were selected and how they demonstrate personal growth. Through this process of self-evaluation, the student also may become more motivated to produce higher quality work.

One of the principles of constructivism is metacognition, the practice of self-reflection (Glatthorn, 1995). Student-led conferencing provides a structured opportunity for students to evaluate their progress toward self-identified goals and to note areas where academic improvement is needed.

### *Parent Benefits*

When parents attend a conference, they are interested in receiving honest and complete information regarding their child's progress in school. Only the student has full knowledge concerning his or her academic progress, so he or she can explain to the parent the detailed reasons underlying either academic success or lack of progress. Parents can receive clarification from the student or facilitating teacher and most likely will leave the conference with a better understanding of their child's academic progress (Guyton and Fielstein, 1989).

As they observe their child's confident approach as he or she leads the conference discussion, parents typically become acutely aware that their child is becoming capable of handling new responsibilities. This conference can improve communication channels between parent and student, which will continue long after the conference is concluded.

### *Teacher Benefits*

Since the student-led format creates a more relaxed, supportive atmosphere, most teachers report that they no longer approach parent conferences with guarded apprehension. Teachers voice tremendous pride in their students' performances and report decreased levels of stress and personal exhaustion at the end of the conference time. Teachers also receive praise from parents for allowing the students to assume control of their conferences (Little and Allan, 1989).

Student-led conferences can actually be used as a form of performance assessment. Teachers can observe students' organization and oral communication skills, grade their performance, and provide feedback to students at the conclusion of the conference. Students have the opportunity to practice these skills in a real-life, authentic setting, albeit within a supportive environment that includes parents and teacher.

An additional benefit of the student-led approach is that it does not need to be held in the school setting. Consequently, if the parent is unable to attend the conference, the student and parent may elect to conduct the conference at home. In *Turning Points*, the Carnegie task force recommended that parent conferences be scheduled at least twice each year. Faculties may consider holding conferences at school at the end of the first and third quarter, and in the home at the end of the second quarter and the end of the school year.

## Student-Led Conferencing in Practice

Center Middle School (CMS) is located in Kansas City, Mo., and serves an ethnically diverse student population of approximately 400. Principal Lance Campbell notes that CMS, which includes grades seven and eight, has operated under the middle school concept for eight years. Two interdisciplinary teams operate at

## Figure 4: Student Self-Assessment Activity

1. Describe those things that make you feel good about school.

2. Describe those things about school that you would like to change.

3. What do you wish your teachers understood about you that they don't know?

4. What things can your parents and teachers do to help you?

each of the school's two grade levels. With the leadership and direction of counselor Sharon Nibbelink, the faculty piloted student-led conferencing with one team in 1992-1993 and expanded it to the entire school the following year. The CMS team teachers work with their students during shared seminar time to prepare them for their conferencing roles.

### *Advance Conference Preparation*

At the beginning of the year, teachers explain how student performance will be assessed. Students compile both an academic and a career portfolio: the academic portfolio consists of materials students select to demonstrate their academic growth in their courses, and the career portfolio is developed as students participate in career exploration activities presented by the two school counselors during each team's seminar class. Each quarter, students complete the following curriculum activities: self-awareness assessment (See Figure 4.), time management skill development, communication and interpersonal skill development, and goal setting.

In the self-awareness assessment, students answer questions about themselves and prepare a "Coat of Arms" which notes personal beliefs about themselves. During the goal setting activity, students create quarterly goal sheets with the assistance of their teacher that include growth objectives and action steps in the following five areas: academic, personal responsibility, leadership, community service, and physical/wellness health.

During seminar sessions two weeks before conferences, the counselors and teachers explain the student-led conference format to students, noting the conference goals, sharing expectations for student performance, and explaining that students will be assessed and evaluated on their performance. Students view videotape of an actual student-led conference so they may see examples of students' performances. The videotape assures even the most reserved student that others have survived the conferences and helps bolster self-confidence in their ability to lead their own meeting.

As they prepare for conferences, students design a welcome card that they will present to their parents at the start of the session and complete a questionnaire in which they describe their feelings regarding their school experiences. Students also review their grade plan sheet, which lists the grades they want to attain in each of their courses that quarter. Throughout the remainder of the quarter, students continue to organize their portfolios, carefully selecting materials they wish to share with their parents. Students also begin to develop their conference agenda.

### *Three Sessions Prior to Conferences*

As conference time approaches, the CMS teachers explain their roles in the student-led conference format, noting that they will be observing the process and providing evaluative feedback to students. The teachers and counselors demonstrate the process through role-playing a typical conference. This experience allows the students to express any fears and concerns regarding their participation in the upcoming conferences and provides an opportunity for the staff to answer any student questions.

### *Two Sessions Prior to Conferences*

During this seminar session, students have an opportunity to practice with "fake" grades and packets. As a class, students brainstorm ways they might improve these fictional grades, such as maintaining their assignment notebooks on a daily basis, utilizing peer or teacher tutoring that is provided within the building, staying on top of their homework assignments, and/or studying effectively for tests and quizzes. Students learn they will be observed for their performance in five skill areas: appropriate body posture, the absence of "I can't" statements, statements of goals with appropriate action steps, carefully developed solutions for any academic problems, and completeness of their conference presentation. Students then rehearse their conference presentations in groups of four or five, with their peers rating their performance on an observation sheet. (Figure 5). As a group, teacher and students work through their practice sessions, providing constructive feedback as students work to correct any skill deficiencies.

### *Final Session Prior to Conferences*

When the CMS faculty initially piloted the student-led conference format, teachers handed out grade cards to students at the actual parent conference. However, experience has shown it is more effective to share the grade cards with students prior to the conference, so students will have an opportunity to prepare their Grade Plan Sheets and will be better prepared to answer parents' questions concerning their grades. The conferencing model is designed to be a process, not an event. Rather than becoming fixated on past performance, the student-led format encourages parents and student to focus on future academic growth.

At the final practice session, students receive their "real" grade cards for the term, review their grades, and then complete a Grade Plan Sheet for the upcoming semester. They concentrate on developing action plans to

## Figure 5: Student-Led Conferences

### Observation Sheet

| | Group Members | | | |
|---|---|---|---|---|
| **Skills** | Person #1:<br><br>Observed by: | Person #2:<br><br>Observed by: | Person #3:<br><br>Observed by: | Person #4:<br><br>Observed by: |
| Body Language | | | | |
| "I can't" statements | | | | |
| Goals with action steps | | | | |
| Solutions to problems | | | | |
| Completeness | | | | |

improve or maintain their grades, and develop workable solutions for any problems they may have identified. Once again, students practice in small groups and receive feedback on their performance through the observation sheets. They have a few days to fine-tune their presentation and mentally prepare for the actual conference.

### *Conference Day*

On the day of the actual conference, the student greets his or her parent(s) in the teacher adviser's classroom, invites them to be seated, and follows the Conference Agenda that is outlined in Figure 6. Since they have practiced several times, most students feel very self-confident and have few problems leading this discussion.

At Center Middle School, 20 minutes are reserved for student-led conferences, although other schools have chosen to set aside up to 45 minutes (Shannon, 1997). What matters most is that students and parents feel they have time to discuss information without feeling rushed. Parents should also have an opportunity to ask questions, both of their child and of the teacher. Some schools schedule up to four conferences in the classroom at one time, with the teacher being "on call" within the room to address parent concerns (Guyton and Fielstein, 1989; Little and Allan, 1989). In contrast, the CMS faculty schedules only one conference at a time so teachers may provide individual attention to each family session.

Student-led conferences have received favorable evaluations by students, parents, and teachers (Guyton and Fielstein, 1989; Little and Allan, 1989). However, in spite of what may be viewed as overwhelming support for this model, some parents still prefer the traditional parent-teacher conference. Teachers can address this concern by reserving five minutes at the end of each student-led conference for private parent-teacher conversations if requested, allowing parents to schedule a follow-up conference with the teacher, or providing parents with the option of either a traditional or student-led conference.

**Figure 6**

**Conference Agenda**

1. Welcome Card and Introductions
2. Self-Awareness Activities
   - Coat of Arms
3. School Questionnaire
4. Assignment Notebook
5. Goals for Growth
6. Portfolios
   - Academic
   - Career
7. Grade Plan Sheet
8. Student/Parent Goals for Upcoming Quarter
9. Questions and Comments
10. Surveys/Evaluation

## Closing Thoughts

Our evolving understanding of how students learn continues to reinforce the importance of student engagement in all aspects of the school day. We hope individual teachers, groups of teachers, and entire faculties will study the examples presented here and become more adept at including students in their own education. The students are the benefactors.

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